LATE REPORT FOR SWAN ISLAND, WEST INDIES

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent obtained by radiosondes during September 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Swan Island, West Indies (10 m.)				Altitude (meters) m. s. l.	Swan Island, West Indies (10 m.)			
	Number of observations	Pressure	Temperature	Relative humidity		Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,011	26.4	86	7,000	28	432	−13.0	59
500	30	957	23.6	83	8,000	26	378	−19.5	60
1,000	30	903	20.8	79	9,000	25	330	−26.5	
1,500	30	853	18.2	72	10,000	24	287	−34.1	
2,000	30	804	15.4	68	11,000	24	248	−42.2	
2,500	30	758	12.7	65	12,000	24	213	−50.6	
3,000	30	714	9.8	64	13,000	23	182	−59.0	
4,000	30	632	3.9	64	14,000	21	155	−66.6	
5,000	30	558	−1.7	61	15,000	15	132	−72.6	
6,000	28	492	−7.0	56	16,000	8	110	−76.9	

RIVER STAGES AND FLOODS FOR OCTOBER 1945

By C. R. JORDAN

Precipitation during October averaged less than normal in most of the States. It was particularly dry in Virginia and in the Central and North-central States. The State of Iowa experienced the driest October of record, where precipitation averaged 16 percent of normal, or 0.34 inch. Rainfall was much above normal in the Southwest; from Texas eastward through Georgia; Tennessee; and in Michigan, Ohio, New York, and New England.

During the 6-month period ending with October, precipitation was above normal in every State except Kentucky, New Mexico, Arizona, north Dakota, Montana, and Washington, with a nation-wide average of 117 percent. The greatest departures from normal were Nevada, with 174 percent, and New Mexico, with 72 percent.

Run-off was generally above normal for October, representing, in many cases, carry-over from recharge of previous months. The greatest flood in several years was reported in the upper Mohawk River Basin in central New York, where damage was reported to be in the neighborhood of $1,000,000. Streams along the South Atlantic Coast receded slowly during the month, and the streams in Arkansas and Oklahoma fell steadily from high stages observed in late September and the opening days of October.

Atlantic Slope drainage.—The greatest flood of record in the upper Mohawk River Basin since the completion of the new State Barge Canal system about 1918, occurred on October 1–3, 1945. The following report of the flood was received from Mr. E. J. Christie, Weather Bureau Office, Albany, N. Y.:

A mass of cold polar air influenced the weather over New York State during the last 2 days of September 1945. On Monday, October 1, the cold air mass had moved eastward, and the main body of it overlay New England as it was being overrun from the southwest by a mass of warm and moist air which converged over western New York and eastward over the headwaters of the Mohawk River and on up over the central and southern Adirondack Mountains. The precipitation pattern caused by this flow of air followed that of no less than five September storms, most of them bringing copious rainfall. Rain began in the early morning of Monday, October 1, and continued steadily all day and night. The rain gage chart from the recording gage at Utica Airport showed the period to be just 24½ hours when any rain of consequence fell—6:00 a. m. on the 1st to 6:30 a. m. on the 2d. The rain fell with interesting uniformity as regards its intensity, the graph resulting from it as pictured on the rain gage chart being almost a straight-line progression during the time period indicated above. The amounts reported each successive 6 hours from the weather stations at the Rome Air Depot and the Utica Airport also bear this out.

Due to the heavy rainfall over this same area in September, reservoirs were at high levels prior to the storm, the ground water level was near its maximum, and the surface fairly well saturated from the most recent heavy storm on the 28th of September. Therefore, the run-off was especially high for this type of storm, and, with no storage of consequence to control it, the streams rose steadily. By Tuesday morning, a severe flood was in progress in all the headwater creeks and streams. The Delta Dam was spilling more water than at any time since its construction; the West Branch of the Mohawk River, as well as Oriskany Creek, East and West Canada Creeks, and all other small tributaries, had reached highest levels since 1913. Due to the fact that only light rain fell in the Schoharie Creek watershed, the lower Mohawk Valley escaped without damage from flooding, and at Schenectady and Cohoes, the flow was only of moderate capacity and height.

Damage from the flooding is estimated to have been in the neighborhood of one million dollars and was about equally divided among industry, transportation, agriculture, utilities, and miscellaneous. In only a very few localities was it necessary for the inhabitants to move to safer ground, but many basements were filled or partially filled.

The amounts of rainfall during the storm period, as reported from stations in and adjacent to the upper Mohawk River watershed, were as follows:

Station	*Inches*	*Station*	*Inches*
Highmarket	5.03	Hoffmeister	4.41
Booneville	4.37	Stewarts Landing	3.95
Rome	4.51	Sprite Creek	3.92
Hinckley	5.20	Inghams	3.09
Trenton Falls	4.70	Little Falls	2.84
Utica Airport	3.92	Pecks Pond	3.99
Utica	4.38	Cloversville	3.62

No flood stages occurred at official Weather Bureau stations, but in order to present a picture of the magnitude of this high-water period and a comparison with some of the previous records, some